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DESIGN-BUILD SCOPE OF WORK

FOR

PROGRAM YEAR 2009 – DESIGN-BUILD SITE ADAPT

OF

A NEW DINING HALL

AT THE

SCHENCK CIVILIAN CONSERVATION CENTER

PISGAH FOREST, NORTH CAROLINA

U.S. DEPARTMENT OF LABOR

PREPARED BY:

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April, 2009

PROJECT NO. 1397
DBSOW

TABLE OF CONTENTS

SCOPE OF WORK
PY 2007 – NEW DINING HALL
PISGAH FOREST, NORTH CAROLINA

SCHENCK CIVILIAN CONSERVATION CENTER

I. GENERAL

The work involves services to site adapt an existing design and to construct a new Dining Hall building at the Schenck Civilian Conservation Center, totaling approximately 9,230 gross square feet. In addition, the work includes the demolition of the existing Dinning Hall (Building 40) and the design and construction of a 4,500 square feet paved area. The work shall be designed and constructed to comply with requirements as established by the Leadership in Energy and Environmental Design (LEED) or similar high performance sustainability goals. A formal LEED Certification is not required. The work shall also include miscellaneous site improvements in the form of general landscaping, roads, parking, drainage, connection to all utility lines and site/security lighting for the new building. The extent of work is described in section IV of this scope of work.

The intent of the U.S. Department of Labor's approach is to utilize the site adapt delivery method as follows:

The design/build contractor shall use the existing design documents provided as the basis for design and will develop new documents as required for programmatic modifications, site adaptation and code compliance. After reviewing the existing design documents for completeness, correctness, and constructability, the design-build contractor shall make any modifications deemed necessary to accept all liability for document content.

1. The design-build contractor shall modify the existing design of a Dining Hall as required to meet site conditions, environmental conditions and all applicable codes in Pisgah National Forest, North Carolina. Mechanical and electrical systems shall be evaluated to accommodate the revised program and geographic locations.

2. Revisions to the existing design documents are required to adapt the facility to the selected site. Specific design modifications may include civil, structural, architectural, mechanical, and electrical as described further in section IV of this scope of work.

3. The design-build contractor shall provide a code analysis and current code review and update the new design to comply with all applicable codes.

4. The design-build contractor is required to provide a complete civil engineering design of the entire construction site that includes grading and walks, all required infra-structure and utilities including but not limited to the sanitary sewer system, water distribution system, electrical service, gas service, storm water management, etc. throughout the site to service the new building. Although DOL is providing a soils boring report, it is

required that the design-build contractor provides any additional information that is required to complete the design. The design concept is to be submitted at the 60% Interim Submittal.

5. The design-build contractor is required to provide a complete engineered foundation design for the building that is being site adapted. The foundation design must comply with the recommendations from the DOL provided soil boring report. Any deviation from the recommendations of the report shall be submitted in writing to DOL for approval. Although DOL is providing a soil borings report, it is required that the design-build contractor provides any additional information that is required to complete the design. The design concept is to be submitted at the 60% Interim Submittal.

6. The Design/Build Contractor is required to investigate the HVAC/Mechanical design concept prior to the 60% Interim Submittal to determine feasibility and if it is determined to not be a feasible concept, then the Design/Build Contractor is required to recommend alternate mechanical concept systems or modifications at the 60% Interim Submittal for DOL approval. The recommended systems must be designed and installed within the Estimated Price Range. Modifications to the current building design, associated construction impacts, and all coordination of architectural and engineering disciplines shall be included in the Fixed Price.

7. The following plans and specifications will be provided to the design-build contractor in hard copy form:

   a. Project Manual for RELOCATION PROJECT AT LITTLE ROCK JOB CORPS CENTER – LITTLE ROCK, ARKANSAS, dated March 21, 2007, by Stuck, Woods, and Allison Architects. Architect's, Division 00 thru Division 16.

   b. Project Drawings for RELOCATION PROJECT AT LITTLE ROCK JOB CORPS CENTER – LITTLE ROCK, ARKANSAS, dated March 21, 2007, by Stuck, Woods, and Allison Architects. The drawings include a Drawing Index; Architectural Drawings 0A.1.1, thru 0A.1.3, 5A.1.0, thru 5A.1.4, 5A.2.0, thru 5A.2.2, 5A.5.0, 5A.6.0, 5A.6.1, 5A.8, 00L.1.1, thru 0L.1.4, Site Plan 0C.0.1, thru 0C.1.7, 0C.2.1, thru 0C.2.9, 0C.3.1, thru 0C.3.9, 0C.4.1, thru 0C.4.3, 0C.5.1, thru 0C.5.6, 0C.6.1, thru 0C.7.4, , Structural Drawings, 1LS.1.0, 1LS.1.1, 2LS.1.0, 2LS.1.1, 3LS.1.0, thru 6LS.1.0, 6LS.1.1, 8LS.1.0, 5S.1.0, thru 5S.5.0, 9S.0.0, 9S.0.1, thru 9S.8.0, thru 9S.8.4, Mechanical Drawings, 5M.1.1, 9M.1.1, 9M.2.1, 9M.2.2, 9M.3.1, thru 9M.3.7, 9M.4.1, 9M.4.2, Electrical Drawings, 5E.1.0, thru 5E.3.2, 5E.4.0, 5E.4.1, 9E.1.0, 9E.1.1, 9E.1.2, 9E.2.0, thru 9E.2.3.

The attached drawings and specifications are considered to be conceptual and are to be used for informational purposes only. DOL makes no warranty for the completeness or usefulness of the drawings and specifications that are provided.

"DB Quick Reference Checklist", Attachment 1, is a required form that identifies a simplified but not all inclusive list of issues that the design-build contractor needs to include as bid

documents. The JCH-814 paragraphs shown provide an initial design reference; however, reference to other sources may be required to fully address the issue.

II. DESIGN REQUIREMENTS/SPECIFIC INSTRUCTIONS

A. LEGALLY MANDATED STANDARDS

The design/build contractor will conform to:

1. Code of Federal Regulations

   a. Safety and Health.....OSHA CFR Part 1926.62
   N.E. Shap 40 CFR (O) Subpart M
   40 CFR 761

   b. Historic Preservation..... 36 CFR Part 800
   NOT APPLICABLE

   c. Disability/Accessibility.....28 CFR Part 36

   The facility/project must be in strict conformance with the Uniform Federal Accessibility Standards (UFAS) or the American with Disability Act - Accessibility Guidelines for Buildings and Facilities (ADAAG), whichever is more stringent. The design-build contractor shall conduct a thorough research of these guidelines and, without exception, comply to the fullest extent, including those guidelines pertaining to the visually and hearing impaired.

   No deviations from these guidelines are allowed. However, if the design/build contractor, at any Design Review Submittal, demonstrates that the requirements would be technically infeasible or it would cause an undue burden as defined by the guidelines, the design-build contractor is obligated to bring this requirement to the attention of the Department of Labor for a decision on such requirements.

   d. Life Safety Code.....NFPA-101

   The design-build contractor's responsibility for safety related requirements extends to all impacted areas and access ways affected by the work.

2. National and State Building Codes

The design-build contractor shall conform to all applicable construction codes, ordinances, and regulations including the national building code used in the local area, laws and local ordinances. Deviations and interpretations shall be subject to the approval of the Department of Labor. The design shall comply with all state and local codes pertaining to hurricane, heavy wind, and rain storm design. All required and/or

recommended design and building practices required by the State of North Carolina, the Pisgah National Forest, Transylvania County and the City of Pisgah Forest shall be considered in the design.

3. Permits and Licenses

The design-build contractor shall research all regulatory, permitting and licensing requirements in accordance with JCH-814 section 1.5.

a. The design-build contractor shall not submit plans or specifications to any local or state authority without the prior approval of the DOL/National Office, Job Corps. Since the center is owned by the Federal Government, the DOL may be required to seek permits as required by local utility companies prior to them rendering services to the project during construction.

b. Where required by DOL, the design-build contractor shall to submit the plans/specification documents to local agencies for permitting purposes. Any and all regulatory agency comments received as a result of the agency review shall be forwarded to DOL for review and approval prior to their incorporation documents. Once approved by DOL, the necessary work to bring the documents into compliance with the comments shall be performed by the design-build contractor as part of this contract including any subsequent re-submittals that may be required.

c. It is required that the design-build contractor will need to assess the requirements of the State of North Carolina, the Pisgah National Forest, the City of Pisgah Forest, Brevard Public Water and Sewer Authority, the Transylvania County, the City of Pisgah Forest, N.C., Building Codes, the Duke Power Company, and all applicable codes with respect to this project.

d. Written authorization is required from the Department of Labor prior to communications with the State of North Carolina, the Pisgah National Forest, the Transylvania County, the City of Pisgah Forest, Brevard Public Water and Sewer Authority, the Transylvania County, the City of Pisgah Forest, N.C., Building Codes, and the Duke Power Company. The Department of Labor will assist the design-build contractor in the determination of these requirements through joint coordination.

e. The design-build contractor shall provide a fixed price to obtain the permits.

B. JOB CORPS GUIDELINES

1. JCH-814: Planning, Design, and Construction Administration Guidelines for Architects and Engineers

For purpose of this project, any reference to Architects and Engineers shall equate to the Design Build Contractor.

Job Corps publication JCH-814, "Planning, Design, and Construction Administration Guidelines for Architects and Engineers," is a companion document to this scope of work. The JCH-814 has been developed to ensure consistency and clarity of project documents that form the basis of contracts for the design and construction of Job Corps facilities. It presents the design-build contractor additional design criteria not specifically stated in the scope of work. Where conflicts occur between the requirements of the scope of work and JCH-814, the requirements of the scope of work shall take precedence.

2. Equipment Manual

The design-build contractor will be provided with a copy of the "Prototype Design Guidelines - Cafeteria." The design-build contractor and its consultants shall use this manual as a guide and coordinate with the ESC to determine the actual equipment required.

3. TAG J: Health and Wellness Facilities Guideline
NOT APPLICABLE

C. OTHER STANDARDS

1. Life Cycle Cost (LCC) Analyses

LCC shall be utilized as the basis for recommendations in making the selections of energy sources, systems and equipment, and building materials. However, the design must be consistent and in accordance with the extent of the scope of work and the budget. At the 60% Interim Submittal, the LCC analyses for the mechanical systems and fuel shall be submitted with recommendations for review, and shall be approved and revised as necessary as equipment is selected and specified. The LCC's shall be run on NIST's BLCC and Discount software programs. On request, the Department of Labor will furnish this software to the design/build contractor free of charge. The BLCC program shall be run on the OMB A-94 guidelines, using a 2.7 % discount factor.

The BLCC software is also available on the Federal Energy Management Program website at http://www.eere.energy.gov/femp/information/download_blcc.cfm under the heading "BLCC 4.9-08(or latest version) & Quick BLCC 2.9-08 (or latest version)" for DOS programs only or "BLCC 5.3-08 (or latest version)" for a Windows version.

Provide a life cycle cost analysis for available types of renewable energy (solar, wind, and biomass). Include any credits available from federal, state, and local sources. Evaluate whether net metering (selling electricity back to the utility) is possible for this project.

2. Energy Conservation

All new work is to be designed in accordance with energy conservation opportunities and applicable federal directives. In response to energy conservation concerns, all proposed

construction shall conform to the current edition of the Model Energy Code of the State of North Carolina.

It is the Department of Labor's policy to purchase energy and water consuming products which are in the upper 25% of energy and water efficiency whenever practicable and cost effective. All work must be designed to meet or exceed the requirements of the Energy Policy Act of 2005 and Sec.2 (f) of Executive Order 13423, and all other applicable federal, state, and local codes and directives.

The design-build contractor shall review the existing design to verify that the existing design addresses energy conservation opportunities and applicable federal directives. The design-build contractor shall evaluate options for the use of energy and water conservation measures in building design, inclusive of solar hot water heating systems, and shall include a description of recommended options in the design narrative for consideration and acceptance by DOL (see JCH-814 for requirements).

In addition to the guidelines in JCH-814 Section 1.8, the design-build contractor shall, at a minimum, evaluate:

- The use of harvested rainwater, treated wastewater and air conditioner condensate should also be considered and used where feasible for nonpotable use and potable use where allowed.

- To the maximum extent feasible, maintain or restore the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow.

- Use certified sustainable wood products, if these products meet performance requirements and are available at a reasonable cost.

- Provide salvage, reuse and recycling services for at least 50% of waste generated where markets or onsite recycling opportunities exist.

- The design-build contractor shall evaluate options for the use of energy and water conservation measures in building design, inclusive of solar hot water heating systems, tankless water heaters, wind energy, biomass, and other measures suitable to the location of construction.

The design-build contractor shall include a description of the recommended options in the design narrative for consideration and acceptance by DOL (see JCH-814 for requirements).

3. Environmentally Preferable Products

The design-build contractor shall evaluate options for the use of environmentally preferable products and environmentally preferable building design and shall include a description of recommended options in the design narrative (see JCH-814 for requirements).

4. Asbestos-Containing Materials & PCB Fluorescent Light Ballasts:

An asbestos survey of the center's buildings was conducted in August, 1992. The results of the survey and subsequent lab tests confirm the presence of asbestos-containing materials (ACM) in certain locations of the buildings. A copy of the report will be made available to the design-build contractor. It is not intended that all asbestos identified in the report be removed. Asbestos containing materials shall only be removed as necessary to complete the rehabilitation work.

Friable ACM shall be abated prior to building demolition. Non-friable ACM shall be abated prior to building demolition only as necessary to comply with the EPA National Emissions Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 61 Subpart M), and applicable State and Local regulations.

All asbestos abatement or PCB ballast removal shall be done by licensed, trained asbestos workers, supervisors, and contractors. An asbestos abatement work plan shall be prepared by a licensed, trained asbestos project designer for submittal. Asbestos abatement work plan shall include the list and location of materials to be abated, methods of abatement, containment setup and location, decontamination procedures, respiratory protection, all worker licenses, training certifications and medical certifications, and disposal plan including transportation and final disposal location. All asbestos work shall be done in accordance with applicable federal, state, and local regulations. The design-build contractor shall provide the services of an independent industrial hygienist or environmental consultant to conduct on-site project monitoring and air monitoring services during asbestos abatement, including laboratory services as needed. The consultant shall:

a. Conduct a field investigation to identify ACM affected by the rehabilitation activities. It is not intended that the ACM previously identified will be retested. However, suspect ACM not previously identified should be sampled to determine asbestos-content.

b. Conduct a field investigation for PCB fluorescent light ballasts for light fixtures impacted by this project only. The consultant shall not sample dielectric fluid from ballasts but shall rely on labeling to determine PCB status. Unlabeled ballasts shall be assumed to be PCB-containing. Note leaking PCB ballasts for special removal and disposal per 40 CFR 761.

c. Conduct on-site project monitoring and air-monitoring services during asbestos abatement including laboratory services as needed:

- Baseline air sampling (prior to abatement) with Phase Contrast Microscopy (PCM) laboratory analyses.

- In-progress air monitoring and sampling with PCM laboratory analyses.

- Final visual clearance inspections and final clearance air sampling using aggressive air sampling techniques. Sampling shall be conducted in compliance with all applicable Federal, State, and Local requirements.

- Submit a final abatement report certifying that asbestos abatement work has been completed in accordance with all applicable Federal, State, and Local regulations.

Note: The contractor will pay for all costs for additional sampling and analyses resulting from improper execution of the asbestos removal or final clean up.

D. SPECIFIC INSTRUCTIONS

1. Center Operation

The center shall remain in operation throughout the construction phase. All proposed interruptions to center operations must have prior approval from the Center Director. The design/build, as part of this contract, shall coordinate with the ESC and the center to develop a set of construction documents that will minimize disruption of center operations during construction. Phasing of the construction work is not required.

2. Design-Build Contractor Responsibilities

An acceptable quality design must provide appropriate functional facilities at the lowest practical construction cost, with due consideration for economy in maintenance and operation.

The specified construction materials must be of quality that is consistent with the intended use of the facility, the center, and reflect local availability and construction skills. Innovative materials and methods should be considered, but only if they provide an economic or functional advantage.

Although this scope of work may identify specific elements of construction, it is the design-build contractor's responsibility to provide any and all elements which are incidental to provide a fully functional facility.

The design-build contractor will also provide sufficient high quality photographs in digital and paper format to document the completed facility.

3. Submittal Requirements

a. This project will require the following submittals

(1) The design-build contractor's technical proposal shall include those items required in Section 7.5.1- Schematic Design Submittal (15%), of the Job Corps Handbook (JCH) 814, dated September 2006. Additionally, the technical proposal shall address the following items in the scope of work:

a) Provide a basis of design for site work and building orientation to maximize energy performance, foundation systems, and concrete structures.
b) Verify the location and types of existing utilities, within the limits of construction and as required to provide utility service to the new dormitory facility.
c) Report on electrical infrastructure needs and requirements
d) Provide a Schedule of Tests and Inspections requirements.

(2) The design-build contractor shall provide 60% Interim Submittal construction documents based on the schedule. The 60% Interim Submittal construction documents submission shall, at a minimum, contain the following:

(a) Design narrative (all disciplines)

(b) Engineering calculations (all disciplines)

(c) Phasing plan

(d) Updated quality control plan

(e) Drawings (all disciplines)

(f) Specifications (all disciplines)

The 60% Interim Submittal shall meet the requirements of Section 7.5.3 Construction Documents Progress Submittal (60%) of the JCH -814, Planning, Design and Construction Administration Guidelines for Architects and Engineers, dated September 2006.

(3) The design-build contractor shall provide "Construction Ready" documents based on the schedule. The "Construction Ready" documents submission shall, at a minimum, contain the following:

(a) Final design narrative (all disciplines)

(b) Final engineering calculations

(c) Final quality control plan

(d) Drawings (all disciplines)

(e) Specifications (all disciplines)

(4) The final submittal, to include all corrections to the design review comments, shall be submitted 2 weeks after the concurrence letter for the "Construction Ready" design review has been received.

b. Submittals for Review

For the submissions identified above, the design-build contractor shall submit four (4) sets of drawings and project documents (drawings shall consist of two full-size sets and two half-size sets), as well as three (3) sets of design calculations, at the 60% Interim Submittal and "Construction Ready" stages to the Department of Labor for review and concurrence. One (1) set of drawings at the 60% Interim Submittal and "Construction Ready" design stage shall be submitted to the Job Corps Data Center. In addition, one (1) set of drawings and project documents shall be mailed directly by the design-build contractor to the Schenck Civilian Conservation Center at each submission stage.

Each submittal of drawings shall be incorporated into an AutoCAD (version 14 or later) compatible electronic format on compact disc and be delivered to DOL by the design-build contractor in addition to the drawing/specification sets required. Complete project specification documents shall also be furnished on a compact disc in electronic format that is Microsoft Word compatible.

The design-build contractor is required to maintain the design-build schedule per the contract, and must indicate to the Department of Labor ways and means to recover lost time due to delays. No additional time will be given to the design-build contractor unless it is determined by DOL that the delay is legitimate and unavoidable and that the design-build contractor has prudently exercised all options within its authority and ability to avert such delays.

The design-build contractor will be responsible for the professional quality, technical accuracy and adherence to the requirements of the scope of work, and for all plan submittals required under this contract. DOL will perform review of the required submissions. The review will be limited to project constructability (e.g. site problems, existing obstructions or proposed utilities, proposed contract time for construction, omissions, discrepancies, known issues that have occurred at the site or with projects of similar scopes, phasing, and coordination problems that could lead to construction difficulties), design (conformance to the negotiated scope of work) and construction quality control procedures.

Unless stated otherwise, review comments and concurrence with the required submissions do not revise the scope or intent of the project and do not constitute a request for change beyond the negotiated scope of work. In the event DOL

determines that any required submission is incomplete which precludes a meaningful review, or does not adhere to the scope of work, DOL will advise the design-build contractor of the shortcomings and direct the design-build contractor to revise and resubmit the plan. No time extension will be granted as a result of such action. In the event the design-build contractor believes that any review comment requires a change to the scope of agreed work, the design-build contractor shall first consult the DOL for clarification, and shall, within 10 days of receipt of the comments provide written notice to the Contracting Officer concerning the reasons why the design-build contractor believes the scope has been changed.

Following concurrence of the design documentation at the "Construction Ready" stage(s), the design-build contractor shall prepare plan sets for use during construction. All review comments shall be resolved in writing by the design-build contractor to the satisfaction of the DOL before the design-build contractor submits the final construction plans. Each plan sheet shall have its last revised date noted on the sheet and clearly marked "Approved for Construction"

c. In addition to the review, coordination and specification of interior building finishes, and an interior finishes/colors submittal (color board) for the dormitory is required. This submittal is required at the 60% Interim Submittal construction document and final "Construction Ready" stages of design. One copy of the required color board shall be submitted to the DOL and one copy submitted to the Schenck Civilian Conservation Center at each of the identified design submissions.

4. Building Design

a. The design-build contractor must be familiar with Pisgah National Forest, the Transylvania County and the City of Pisgah Forest, N.C. (local) construction methods and building materials, and shall provide a design that exemplifies the optimum balance of economy, aesthetics, energy conservation, safety, ease of maintenance and speed of construction.

b. The design-build contractor shall use the existing design documents (plans and specifications) provided as the basis for the design and will develop a complete set of documents as required for site adaptation, compliance with current code, compliance with established Energy Conservation guidelines contained in Section II, and in accordance with the requirements as described in section IV.

5. Equipment

The design-build contractor shall clearly differentiate equipment that is a part of the design-build contractor's responsibility from equipment that is the Government's responsibility.

In general, only "fixed" equipment will be part of the contract. DOL will provide the "movable" equipment. The responsibility for the procurement of equipment is discussed in the individual section for each building type in JCH-814 Chapter 4.

6. Optional Provisions

The design-build contractor's responsibilities shall include interface activities with any, and all, local utility or service providers (i.e. water, electric, gas, fire alarm, etc). The purpose is not for obtaining permits but for informational purposes (design sizing and cost estimates) only. The design-build contractor shall:

a. Submit the required drawings and specifications to the local utility.

b. Obtain written approval of the interface design, from the utility.

It will be required that the design-build contractor have a valid State of North Carolina contractor's license to perform the work of the project. It is also anticipated that the design-build contractor will need to assess the design and construction requirements of the City of Pisgah Forest, N.C., the Brevard Water and Sewer Authority, and the Duke Power Company with respect to this project. Written authorization is required from the Department of Labor prior to communications with City of Pisgah Forest, N.C., the Brevard Water and Sewer Authority, and the Duke Power Company.

7. Design and Construction Progress Meetings

The design-build contractor should plan for a total of (3) three meeting days with DOL and/or its representatives during the course of the design phases of the work. These meetings will be held in the design-build contractor's offices.

A DOL ESC representative will visit the site once a month. During this visit, the design-build contractor's payment application will be certified by the DOL Engineering Support Contractor. In preparation for the monthly meeting, the design-build contractor shall prepare a monthly construction progress report. The reports shall include an updated CPM schedule, a minimum of 10 electronic photos of all aspects of the project and a list of open issues.

8. Contract Administration
NOT APPLICABLE

9. Site Visits - Construction Observation
NOT APPLICABLE

10. Construction Document Reproduction

Six (6) sets of the "Approved For Construction" documents and drawings, sealed and dated by the appropriate professionals, shall be reproduced for DOL use. In addition, one

(1) set of the "Approved For Construction" documents and drawings shall be mailed by the design-build contractor to the Schenck Civilian Conservation Center.

11. Availability of Existing Documents

Site verification of the existing conditions is required. Existing construction documents identified in Section I are available and will be provided to the design/build contractor as part of the request for fee proposal (RFP). The design-build contractor will be responsible for verification of all the dimensions and existing system types and conditions.

III. ESTIMATED PRICE RANGE

The Estimated Price Range for this entire project is $ 1,000,000.00 to $4,000,000.00.

IV. EXTENT OF WORK

A. SITE IMPROVEMENTS AND UTILITIES

1. Design Objectives

a. Evaluate local conditions, such as topography, climatic factors and provide an optimum solution to the location of the building and site features.

b. Effectively use the contours in laying out the facility. Study the site conditions in conjunction with the macro- and micro-climate when siting and orienting the building. Minimize energy consumption.

c. To facilitate but not overly burden the security control, carefully plan the siting and design of the buildings so that students' activities can be effectively monitored without the students' experiencing a sense of constant surveillance.

d. The entire design should not adversely impact the relatively quiet and peaceful environment. Any trees and vegetation should be preserved as much as possible to retain a natural buffer that is presently there.

e. To a maximum extent feasible, maintain or restore the predevelopment hydrology of the site with regards to temperature, rate, and duration of flow.

2. Site Improvements

a. Site improvements include, but are not limited to: new concrete sidewalks and steps, site lighting, utilities, and landscaping.

b. The design of the new dormitory must consider storm drainage. Provide positive drainage to avoid any standing water outside structures and ponding or flooding of sidewalks and roads.

c. Provide landscape drawings. Landscaping shall be carefully planned so that it will provide a pleasant environment. In addition, landscaping shall be utilized to counter natural elements for the benefit of reducing energy consumption.

d. Provide detailed plans showing erosion control methods throughout the construction period.

e. Clearly delineate the limits of construction on the contract documents.

f. Provide for ground termite treatment with a five (5) year warranty to the building site

g. The design-build contractor will be provided site boring report by DOL for use in preliminary design and cost estimating of foundations. The design build contractor shall provide additional subsurface soil exploration sufficient to complete design of the required foundation for the proposed building. As a minimum, this will include at least six auger borings to a depth of at least eight feet. This work shall include a report with recommendations for foundation designs from a registered geotechnical engineer. The final geotechnical report shall be submitted at the 60% Interim Submittal stage. In addition, the design/build contractor shall include testing and observation services from the soil engineer during earthwork for building pad and foundation construction.

h. No additional parking is required.

3. Site Utilities

a. Provide a topographic survey prepared by a surveyor licensed to practice in local jurisdiction. Provide two reproducible copies and one digital version on compact disc of the final topographic survey at the 60% Interim Submittal design document submission.

The topographic survey shall be complete in every detail of the disturbed construction areas showing all existing construction, utilities, culverts, pipe sizes, inverts, trees, building finish floor elevations, and other site features, as required. The survey shall be prepared at a scale that is appropriate and must have a contour interval of one foot. Two benchmarks must be provided thereon with elevation and coordinates noted for each. Existing utilities must be plotted from available records and verified by field survey wherever possible by ordinary field survey methods.

Excavation and other methods to locate buried underground utilities are part of this scope. However, manholes, inlets, and other such structures must be accessed and

connecting pipes field surveyed. Property lines must be shown plotted from available records but a property line survey is not required.

The new building shall be provided with separate building meters for water and electricity, which will be used by the center only for tracking energy consumption. In compliance with the Energy Policy Act of 2005, each utility shall be metered at the point of entry into each building served. The meters shall be pulse emitting type, 20 hertz maximum with dry contact, KYZ pulse output. The design-build contractor shall provide for category 5 or better ethernet wiring and ethernet RJ45 male connector at each metering point, for remote data collection and analysis, and a 120 volt dedicated outlet as a power source. The design-build contractor shall consult with the ESC relative to the use of the utility company meters for data collection versus using sub-meters. The following equipment has been determined to meet the requirements specified above. Equipment provided shall meet or exceed the capabilities of the following equipment:

- Energy ICT RTU + V
- Energy ICT WEB RTU Z1
- Energy ICT WEB RTU Z2
- Obvious 8812
- Obvious 7801
- Various Hawkeye Series
- Or equal

For water service, verify metering convention used at the center. The building shall be provided with a building meter which will be used by the center only for tracking energy consumption.

b. Provide site lighting that will ensure a safe and secure environment, particularly in the parking, pedestrian and building areas. The lighting shall be attractive and be in keeping with the character of the site and shall provide an adequate level of illumination utilizing pole-mounted and/or building-mounted luminaries. Provide site lighting calculation at the 60% Interim Submittal design document submission.

B. GENERAL BUILDING DESIGN REQUIREMENTS

1. Architectural

a. The project will site adapt to a Dining Hall building design provided by DOL for a one story conventionally framed dining hall structure with insulated walls, and roof. Foundations and options described in this scope of work are to be designed as a part of this contract.

b. The project includes the design and construction of a 4,500 square feet paved area in front of the new building to be used as a pedestrian court.

c. The project requires the demolition of existing Dinning Hall Building No 40, after the completion of construction of the new Dinning Hall.

d. The roofing material supplier/manufacturer shall establish a pre-roofing conference immediately prior to the initiation of installation of the roofing system and after the approval of the roofing shop drawings to allow the owner and the Center a clear understanding of the system being installed and the maintenance requirements. The roofing material supplier/manufacturer shall video tape installation of all roofing installation during the construction period. Emphasis should be placed on the construction detailing of areas most prone to leak, such as flashing, around vent stacks, transition of roofing materials, valleys, etc. The video tape shall be provided to the DOL during the close out phase.

   Install a roofing system that provides a 20 year (minimum) warranty.

e. Verify the quantity and location of stairs as required by grade conditions relative to the new building.

f. Prime and paint all exposed unfinished, visible wood including columns, beams, and trim.

g. Finish hardware shall be heavy duty, handicapped accessible and shall include, but not be limited to, the following:

   - A grand master keying system which is compatible with the center's system.
   - Locksets for all exterior entry/exit doors, offices, storage rooms, mechanical and electrical rooms.
   - Privacy latch sets for all staff toilet rooms.
   - Door closers for all exterior entry/exit doors; surface-mounted emergency exit devices for all required exterior entry/exit doors.
   - Door closers for all fire rated door assemblies.
   - Proper weather-stripping for all exterior doors.
   - Kick plates for all exterior entry/exit doors.
   - Locksets for all dorm rooms that always remain locked from the outside.
   - Door pulls and individual locksets for student closets in the rooms. Locksets shall be keyed deadbolts.

h. Design Modifications

   The existing design for the Dinning Hall and Culinary Arts is slightly larger that required. The design-build contractor shall redesign as required to reach (as close as possible) the 9,230 square feet program requirements. A program for required space allocation is attached. The design build-contractor is to reduce the building square footage (where possible) through space reduction in an effort to reduce the size of the reduce building. It is not the intent to redesign the building in total; however, reduction to the large space that will not alter the building character is acceptable.

2. Structural

   a. All structural and framing wood and plywood sheathing shall be treated with termite and rot inhibitor.
   b. Specify that all ferrous structural light gauge metal frame connectors and other fasteners such as bolts and anchor bolts shall be hot dipped galvanized
   c. The design-build contractor shall design for seismic forces and wind loads in accordance with the building code.

3. Mechanical/Plumbing

   a. Provide all required block-outs and sleeves in stem wall foundations, both sides, and under courtyard slab for water lines, storm drain lines, sanitary sewer lines and natural gas service.

   b. Domestic water heaters shall be furnished with an extended warranty of ten years at a minimum. The storage tank and all separate expansion tanks shall be provided with extended warranties for a minimum of ten years. Natural gas – fired water heaters shall be furnished with an extended warranty of ten years at a minimum. Bathrooms with windows shall have mechanical exhaust directed to the exterior of the building.

   c. The design-build contractor shall evaluate all of the existing HVAC equipment included in the design to determine if the specified equipment is of adequate size and will provide the proper cooling and heating to comply with ASHRAE standards for cooling and heating. The design-build contractor shall size all HVAC and mechanical equipment as required.

   d. Use water sense labeled products and other water conserving products where feasible.

4. Electrical

   a. Systems provided must include complete electrical distribution, fire alarm, data network, cable TV, and telephone systems.

   b. Moisture resistant lighting fixtures must be provided in wet/damp locations.

   c. Exterior security lighting shall be wall-mounted photocell controlled, high pressure sodium lighting fixtures.

   d. Romex cable shall not be used in this project.

   e. Provide a non-coded, electrically supervised, class "A" fire alarm system with standby power. The system shall consist of a fire alarm control panel, manual pull stations, smoke detectors, automatic fire detection system, including but not limited

to heat detectors in janitors' closets, storage rooms and utility rooms, audio/visual alarms and remote annunciator

f. Do not locate smoke detectors outside of bathroom/shower room doors. Moisture from showers sets them off in the other dorms.

g. Provide slab conduits with pull wires for the telephone system.

h. Provide slab conduits with pull wires for a data system from the main computer room.

i. Provide all necessary block-outs and sleeves in stem walls for data conduits, telephone conduits, and electrical conduits for electrical sub-feed.

j. The design-build contractor shall evaluate all of the existing electrical equipment included in the design to determine if the specified equipment is of adequate size and will provide the proper electrical service to comply with code. The design-build contractor shall coordinate and size all electrical equipment as required.

5. Radon

Provide Radon resistant construction, to include a course gravel layer under the slab, a polyethylene sheet under the slab, and a passive ventilation system of 6" PVC piping running from beneath the slab, through the floors of the building and out the roof.

6. Warranties

The design-build contractor shall ensure all warranty requirements, including manufacturer's warranties are clearly identified. The design build contractor shall also compile a list of warranties, including special manufacturers' warranties, in an electronic spreadsheet format that will be provided to DOL.

The manufacturer's warranty shall, at a minimum, include the following information:

a. Project name, contract number, center name, and center address

b. Contractor's name and contact person

c. Contact phone number

d. Building/structure name and number (if applicable)

e. Warranty type (general, roof, HVAC, window, etc) being specific about the material, equipment, or system that is under warranty.

f. Manufacturer/supplier's name and contact data (phone, etc.)

g. Roof type/material (as applicable) being specific about the equipment or system that is under warranty.

h. Special provisions to retain the warranty in force (inspections, preventative maintenance, etc.)

i. Limits and resolutions covered

j. Term of warranty

k. Date of substantial completion (warranty commencement date)

l. Date warranty expires

m. Serial numbers of equipment under warranty

C. FUNCTIONAL BUILDING DESIGN REQUIREMENTS

1. General
Not Applicable

2. Programmatic Requirements

The existing design shall be modified to allow for the following:

a. Redesign the building as required to site adapt an existing design to construct a Dining Hall.

The design-build contractor shall modify the existing design of the provided Dining Hall.

The existing design for the Dinning Hall and Culinary Arts is slightly larger that required. The design-build contractor shall redesign as required to reach (as close as possible) the 9,230 square feet program requirements. A program for required space allocation is attached. The design build-contractor is to reduce the building square footage (where possible) through space reduction in an effort to reduce the size of the reduce building. It is not the intent to redesign the building in total; however, reduction to the large space that will not alter the building character is acceptable.

Consider reduction to the following areas:
- Reduce Dining seating area.
- Reduce Culinary Arts kitchen and dining seating area.

Schenck Food Service

Rev 9 April 2009

224 Students

SUB-FUNCTION	SPACE	NSF/ UNIT	No. of UNITS	NSF A x B = C	SUB-FUNCTION TOTAL NSF	NET TO GROSS FACTOR	GSF D x E = F
		A	B	C	D	E	F
DINING HALL					**2,722**	**1.3**	**3,539**
	DINING AREA, 2 shifts	1,722	1	1,722			
	112 students + 11 staff = 123 seats						
	14 NSF per seat						
	SERVERY	450	1	450			
	SALAD BAR	150	1	150			
	ENTRANCE & QUEUE LINE	200	1	200			
	FEMALE TOILET, HC	100	1	100			
	MALE TOILET, HC	100	1	100			
KITCHEN, STORE					**2,300**	**1.3**	**2,990**
	FOOD PREPARATION AREA	900	1	900			
	DRY STORAGE	250	1	250			
	GENERAL STORAGE	250	1	250			
	BEVERAGE ROOM	40	1	40			
	FREEZER / REFRIGERATOR	200	1	200			
	DISH WASHING	200	1	200			
	POTS AND PANS	60	1	60			
	LAUNDRY	40	1	40			
	MANAGER	120	1	120			
	STAFF MALE LOCKER / TOILET	80	1	100			
	STAFF FEMALE LOCKER / TOILET	80	1	100			
	UTILITY/JANITOR	40	1	40			
	LOADING DOCK (in gross)						
	can washer, garbage refrig.						
TOTAL					**5,022**		**6,529**

NOTE Depending on the design (mech., circulation) the gross could vary between 1.3 and 1.35. A/E's food service consultant should review the program.

CULINARY ARTS					**2,000**	**1.35**	**2,700**
	GUEST DINING	600	1	600			
	CLASSROOM	350	1	350			
	KITCHEN	800	1	800			
	GENERAL STORAGE	100	1	100			
	REFRIGERATOR/FREEZER	50	1	50			
	OFFICE	100	1	100			
	FEMALE TOILET, HC 50 SF in gross		1	0			
	MALE TOILET, HC 50 SF in gross		1	0			

NOTE For larger culinary arts programs, (more than 20 students) 2,700 NSF is recommended.

b. The design-build contractor must specify a roof that has a proven successful track record in the area and the products specified will meet all of the local climatic conditions for the life of the warranty. In addition, the design-build contractor shall re-design the roof and provide positive drainage to scuppers, gutters, and downspouts of adequate size to provide positive drainage to the roofs edge. All interior roof drains shall be deleted. Provide concept information that includes a roof plan, building elevations, and building cross-sections.

c. The design-build contractor shall design protective enclosure walls for each exterior condensing unit to protect the units from vandalism and abuse.

d. The design-build contractor shall provide vehicular access to the primary entrance of the building for emergency service and maintenance service.

e. The design-build contractor shall provide sidewalk access to the adjacent parking lot areas and to the central commons areas.

V. CONSTRUCTION REQUIREMENTS/SPECIFIC INSTRUCTIONS

A. SPECIFIC INSTRUCTIONS

1. Quality Requirements

a. Quality Control (QC)

(1) The design-build contractor shall maintain quality control for and inspect all work under the contract in accordance with the approved Quality Control Plan. The design-build contractor with its design team, as members of the contractor QC organization, shall remain directly involved during the construction process.

(2) The design-build contractor shall submit a QC Plan for DOL review and acceptance. The QC plan shall include, at a minimum, the following:

(a) Names, qualification and responsibilities for each person in the QC organization (design and construction)

(b) Outside organizations, including architectural and consulting engineering firms and a description of the services these firms will provide.

(c) Initial Submittal Register (Design & Construction) to include submittal reviewer and established date of delivery.

(d) Testing laboratories, accredited laboratories as applicable.

(e) Testing plan and log. Testing required, referenced by specification paragraph number requiring the test, description of test and inspection, applicable reference standards, frequency, and person responsible for each test.

(f) Start-up and commissioning plan.

(g) A Definable Feature of Work (DFOW) is a task, which is separate and distinct from other tasks, has the same control requirements and work crews.

(3) The design-build contractor shall identify a Quality Control (QC) Manager who is not the project superintendent or a production supervisor and whose responsibilities are as follows:

(a) Participate in Post Award Kick-Off, Design Development and Coordination Meetings and Production Meetings.

(b) Ensure that no construction begins before the design-build contractor has signed and stamped the design for that segment of work, and design and construction submittals are approved.

(c) Immediately stop any work that does not comply with contract plans and specifications, and direct the removal and replacement of any defective work.

(d) Prepare QC Reports.

(e) Hold biweekly QC meetings with the design-build contractor's Superintendent, applicable subcontractor and vendors, and applicable members of the design-build contractor's design team.

(f) Ensure that safety inspections are performed. Attend weekly Toolbox meetings.

(g) Maintain submittal log.

(h) Maintain updated as-built drawings on site.

(i) Maintain testing plan and log. Ensure that all testing is performed per contract and applicable referenced standards.

(j) Maintain deficiency log on site, noting dates deficiencies identified, and date corrected.

(k) Certify and sign statement on each invoice that all work to be paid under the invoice has been completed in accordance with contract requirements.

(l) Ensure all start-up and commissioning procedures are performed and properly documented.

(m) Perform punch-out and pre-final inspections, and participate in final inspections. Establish list of deficiencies; correct prior to the final inspection.

(n) Ensure that all required keys, operation and maintenance manuals, warranty certificates, and the as-built drawings are submitted to the Contracting Officer.

(4) Use the three phases of control process for construction QC

(a) Preparatory Phase

Review all applicable documents for compliance with all applicable laws, codes, regulations, and the requirements of the contract, including contract drawings and specifications. Determine requirements for testing and certification. Review submittal approvals for materials, equipment, shop drawings, and applicable methods of construction and installation. Include all Preparatory Phase items in the QC Report.

(b) Initial Phase

Observe and inspect the initial portion of other work performed under a DFOW to establish the quality of the workmanship, resolve conflicts in construction, ensure that testing is done and certified as required, and to check all work procedures to ascertain the work in is conformance with required safety requirements. Record and report nonconforming work and work not of acceptable quality and requiring correction or rework. Include all Initial Phase items, along with initial phase checklist, in the QC Report.

(c) Follow-Up Phase (Occurs at the completion of each DFOW)

Ensure the work is in compliance with contract requirements, quality of workmanship for all work is maintained, and all work performed meets safety requirements. Include all Follow-Up Phase items, including date, in the QC Report.

b. Testing and Inspection

(1) The design-build contractor is responsible for all inspection and testing. All inspections and testing must be performed by an independent, third party individual, firm or testing agency. The individual, firm or testing company shall be appropriately registered in the State of North Carolina. The design-build contractor shall engage only those inspection and testing service agencies, including independent testing laboratories, that are prequalified as complying with the American Council of Independent Laboratories "Recommended Requirements

for Independent Laboratory Qualification" and that specialize in the types of inspections and tests to be performed.

(2) All tests and inspections shall be documented by certified written reports and test results. The independent, third party individual, firm or testing agency shall distribute copies of all testing and inspection reports to DOL, the QC Manager, and the design-build contractor. The design-build contractor shall make additional copies as required and distribute to all affected subcontractors and material suppliers.

c. Start-Up and Commissioning and Training

The purpose of commissioning documentation is to record the standards of performance for building systems, and to verify that what is designed and constructed meets those standards. At a minimum the design-build contractor shall accomplish the following:

(1) Field verification inspection and testing of commissioned systems, assemblies, and features are to be performed as each phase is completed. Verify that the systems operate in accordance with the design intent.

(2) Retest specific systems and/or system components once the deficiencies discovered during the first test are resolved.

(3) During functional performance testing and operator training, the team verifies the performance of building systems and determines the most efficient equipment settings.

(4) Testing should examine systems as a whole in order to evaluate overall design and compatibility.

(5) The design-build contractor's Quality Control Manager will also supervise operations staff training on commissioned systems and equipment, and organize warranty information.

(6) Ultimately, the team will prepare documentation on systems, including benchmarks for energy use and equipment efficiencies, seasonal operational issues, start-up and shutdown procedures.

(7) Test data reports shall contain results of the testing and inspection plans and include pre-functional test (PFT) reports, functional test reports (FTP), and other test results specified for the commissioned systems.

(8) Due to weather conditions, not all systems can be tested at or near full load during the construction phase. Provide for off-season testing to allow testing, balancing, and optimization of integrated systems under the best conditions.

(9) Upon completion of the equipment and systems installation and connections, the design-build contractor's Quality Control Manager shall assemble all major equipment factory representatives and subcontractors together for system start-up and Owner instructional period. These individuals shall assist in start-up and check out of their systems and shall remain at the site until the systems operation is acceptable and understood to the Owner's maintenance and/or operation personnel.

(10) The design-build contractor's Quality Control Manager shall prepare a statement and check list to be included in the Operation and Maintenance Manual. This Statement shall read as follows:

"The contractor, associated factory representatives and subcontractors, have started each system and the total system and have proved their normal operation to the Owner and have instructed him in the operation and maintenance thereof."

_____ _____

Owner Design-Build Contractor

Upon successful start-up and testing, instruct the Owner's representative(s) in operation and maintenance of mechanical systems utilizing the Operation and Maintenance Manual. Individuals present shall include design-build contractor's Quality Control Manager, subcontractors and equipment factory representatives. These individuals shall assist in instruction and start-up. The instruction period shall occur after substantial completion when systems are properly working. The training period shall consist of a total 8 hours of normal working time using approximately half of the time for classroom instruction, and the remaining time for instruction with the equipment or system.

2. Temporary Facilities and Controls

a. Temporary Utility Installation

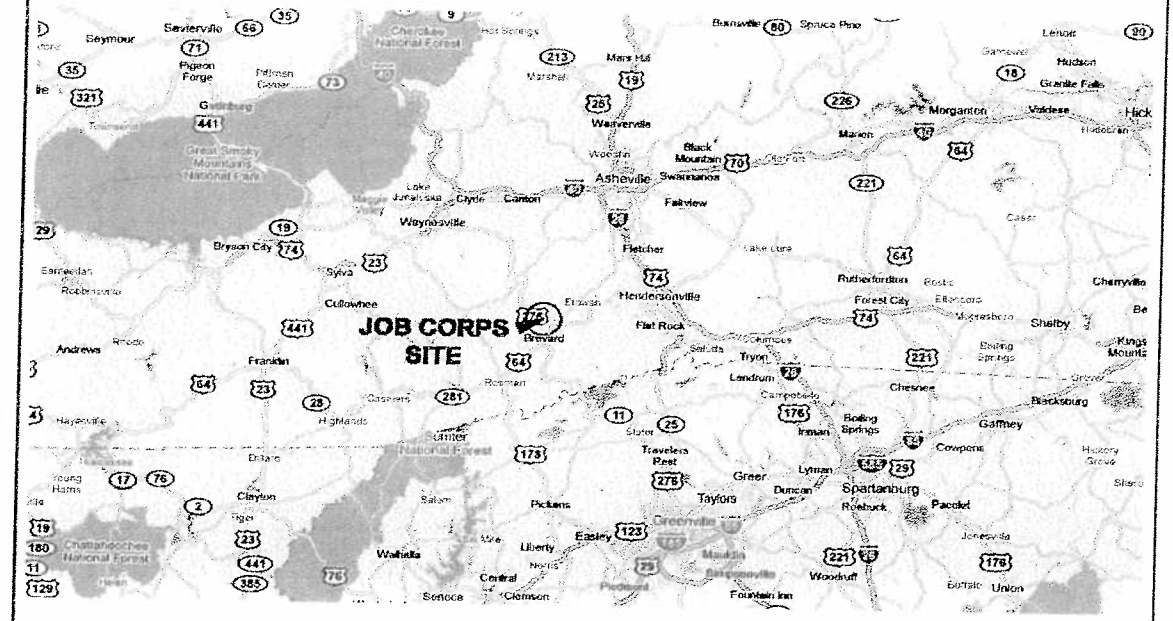
(1) General

The design-build contractor shall pay all costs associated with the installation and removal of temporary utility service, maintenance of temporary utility installations, and usage costs. It shall be the design-build contractor's responsibility to obtain and pay for all necessary approvals and permits that may be required for the installation of the temporary utilities.

The design-build contractor shall engage the appropriate utility company to install temporary service or connect to existing service. Where utility companies provide only part of the service, the design-build contractor shall provide the remainder with matching, compatible materials and equipment.

VI. SKETCHES

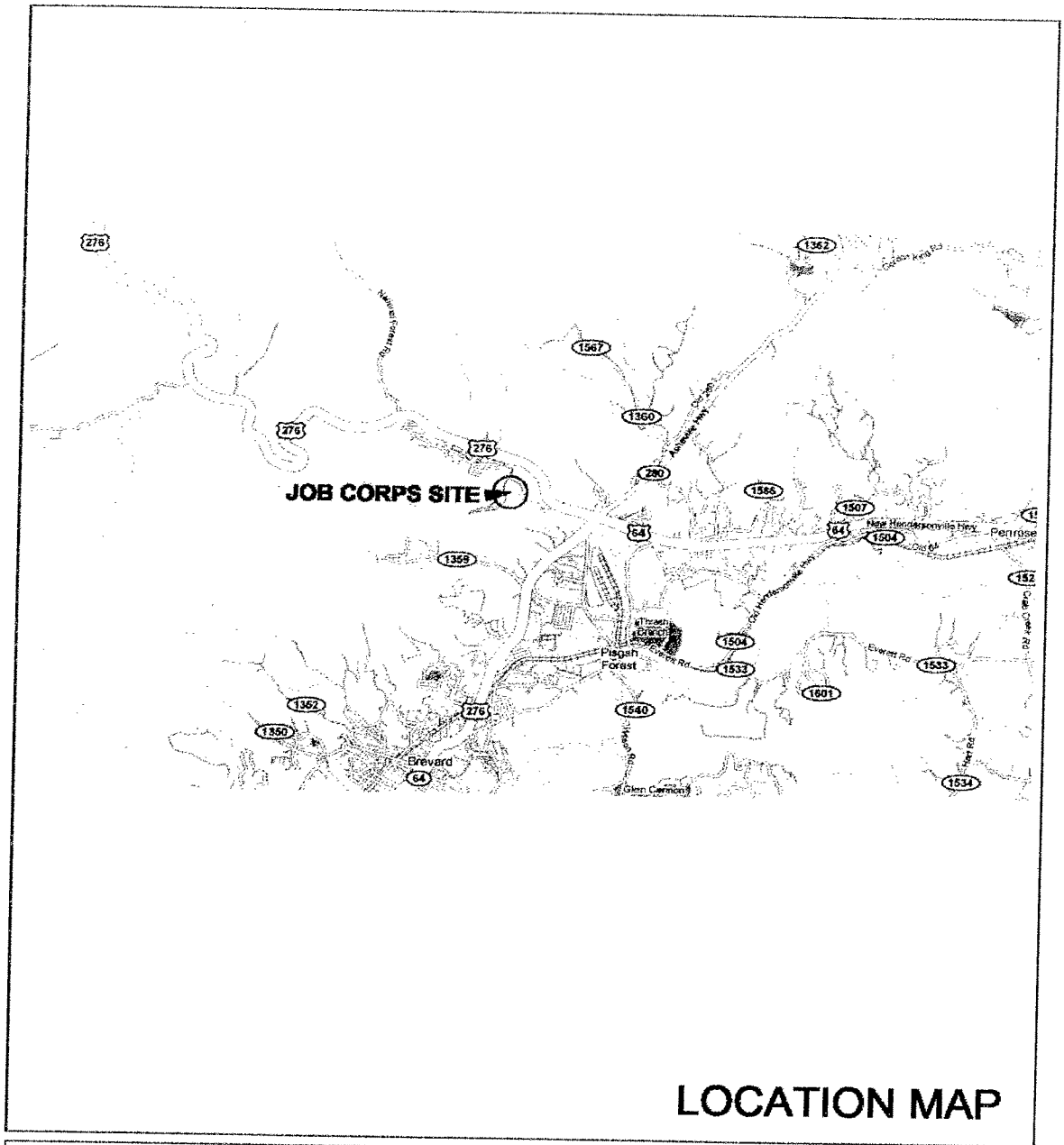
A. VICINITY MAP



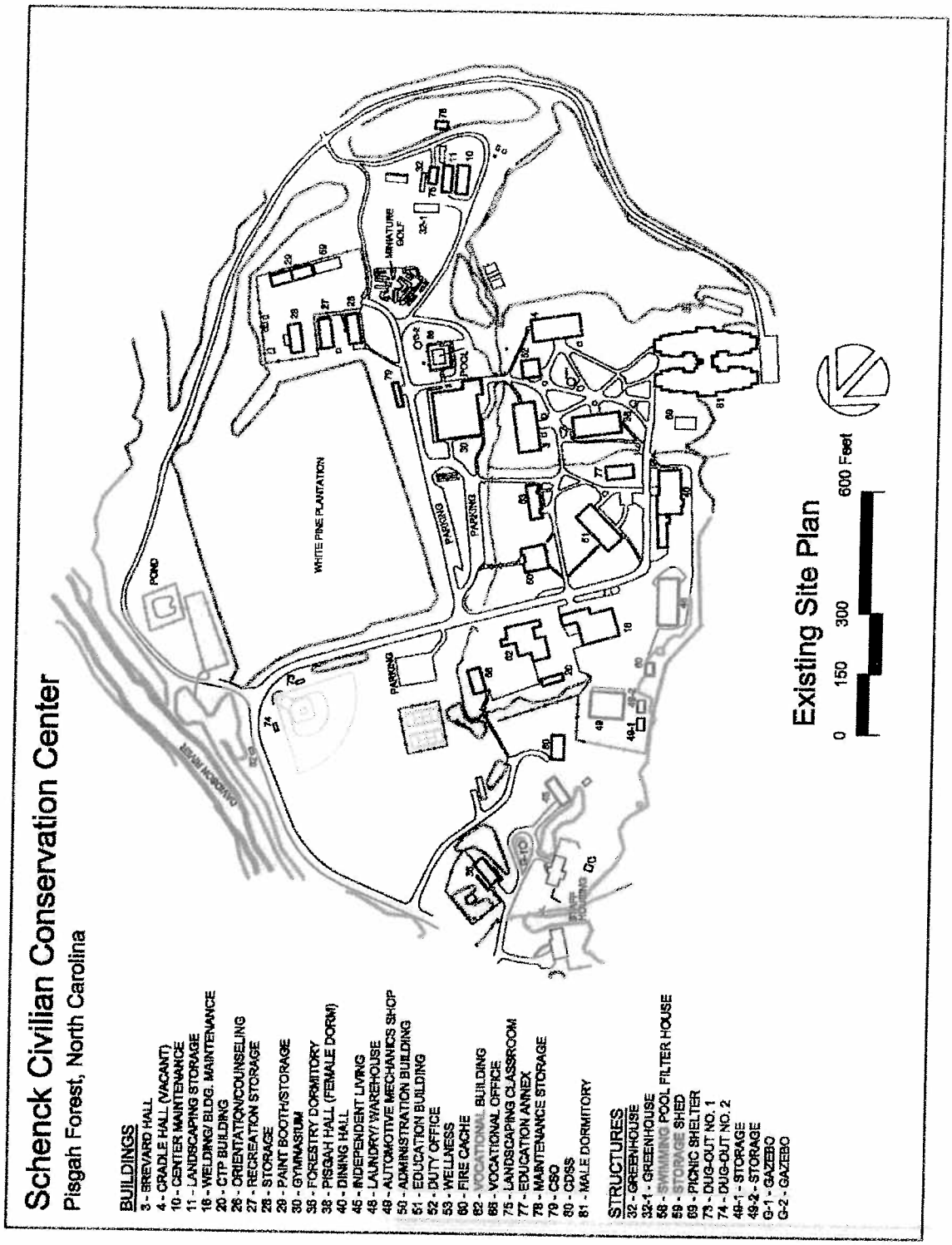
VICINITY MAP

SCHENCK
CIVILIAN CONSERVATION CENTER
PISGAH FOREST, NORTH CAROLINA

B. LOCATION MAP



C. SITE PLAN


Schenck Civilian Conservation Center
Pisgah Forest, North Carolina
BUILDINGS
3 - BREVARD HALL
4 - CRADLE HALL (VACANT)
10 - CENTER MAINTENANCE
11 - LANDSCAPING STORAGE
16 - WELDING/ BLDG. MAINTENANCE
20 - CTP BUILDING
26 - ORIENTATION/COUNSELING
27 - RECREATION STORAGE
28 - STORAGE
29 - PAINT BOOTH/STORAGE
30 - GYMNASIUM
35 - FORESTRY DORMITORY
38 - PISGAH HALL (FEMALE DORM)
40 - DINING HALL
45 - INDEPENDENT LIVING
48 - LAUNDRY/ WAREHOUSE
49 - AUTOMOTIVE MECHANICS SHOP
50 - ADMINISTRATION BUILDING
51 - EDUCATION BUILDING
52 - DUTY OFFICE
53 - WELLNESS
60 - FIRE CACHE
62 - VOCATIONAL BUILDING
68 - VOCATIONAL OFFICE
75 - LANDSCAPING CLASSROOM
77 - EDUCATION ANNEX
78 - MAINTENANCE STORAGE
79 - CSO
80 - CDSS
81 - MALE DORMITORY
STRUCTURES
32 - GREENHOUSE
32-1 - GREENHOUSE
58 - SWIMMING POOL FILTER HOUSE
69 - STORAGE SHED
69 - PICNIC SHELTER
73 - DUG-OUT NO. 1
74 - DUG-OUT NO. 2
49-1 - STORAGE
49-2 - STORAGE
G-1 - GAZEBO
G-2 - GAZEBO
POND
WHITE PINE PLANTATION
PARKING
PARKING
PARKING
MINIATURE GOLF
POOL
Existing Site Plan
0
150
300
600 Feet

D. PROPOSED SITE PLAN